



IN THE UNITED STATES PATENT & TRADEMARK OFFICE
BOARD OF PATENT APPEALS & INTERFERENCES

In re the Application of:)
Morello, *et al.*)
Serial No.: 09/896,365)Group Art Unit: 3635
Filed: June 29, 2001)
For: A BUILDING PANEL AND)
PANEL CRIMPING)
MACHINE)

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellant's Brief

I. Real Party in Interest

MIC Industries, Inc., Reston, Virginia.

II. Related Appeals and Interferences

There are no related appeals or interferences.

III. Status of Claims

Claims 21-27 have been withdrawn as non-elected claims pursuant to an earlier

Restriction Requirement. Claims 1-20 are pending in the above-referenced application. Claims 1 and 15 are independent claims. Claims 2-14 depend from claim 1, claims 16-20 depend from claim 15.

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Claims 1-3, 14, 15-17 and 20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,962,622 issued to Albrecht (hereinafter "*Albrecht*).¹ Claims 1-3, 8, 9, 14, 15-17, 19 and 20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,282,936 issued to Blazley (hereinafter "*Blazley*").² Claims 4-11, 18 and 19 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of *Albrecht*.³ Claims 4-7, 10, 11 and 18 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of *Blazley*.⁴

Claims 1 - 20, all of which are appealed, are attached as Appendix A.

IV. Status of Amendments

There are no pending amendments to the claims.

V. Summary of Invention

The present invention is an improved building panel having increased strength and rigidity, particularly in its resistance to bending moments. The building panel includes a novel curved central portion in lieu of a straight central portion.⁵ The curved central portion is connected to two diverging inclined side wall portions.⁶ Replacing the straight curved portion with a curved portion provides the building panel with increased strength and rigidity, thereby creating the building panel's improved resistance to both positive and negative bending moments. Specifically, the improved building panel claimed has strength and rigidity superior to those of prior art building panels comprising a straight central portion that includes a notched stiffener.⁷

¹ 05/18/04 Office Action, p. 2.

² *Id.*

³ *Id.* at p. 3.

⁴ *Id.* at p. 4.

⁵ Application, p. 5, ll. 27-30.

⁶ Application, p. 10, ll. 5-8.

⁷ Application, p. 6, ll. 2-5.

VI. Issues

- A. Is The Examiner's Interpretation Of The Claims Reasonable And Consistent With The Specification?**
- B. Has a *Prima Facie* Case of Anticipation or Obviousness Utilizing Either the *Albrecht* Reference or the *Blazley* Reference Been Demonstrated?**

VII. Grouping of Claims

Of elected claims 1-20, Group I consists of claims 1-20.

VIII. Argument

- A. The Examiner Is Interpreting the Claims Unreasonably and Inconsistent With The Specification**

When examining claims for patentability, claims are interpreted as broadly as is reasonable and consistent with the specification.⁸ In the Office Action dated May 18, 2004, as in the earlier Office Actions dated November 10, 2003, and February 3, 2003, the Examiner attempts to interpret the claims of the present invention inconsistently with the specification. In the latest Office Action, as with the earlier Office Actions, the Examiner argues that a building panel having a flat region with a longitudinal stiffening rib, or notch, anticipates the building panel claimed. However, the specification clearly distinguishes the present invention from a building panel having a flat region with a longitudinal stiffening notch:

The present invention is an improved building panel capable of withstanding increased bending moments. The building panel includes a curved central portion in lieu of a straight central portion. The curved central portion has a concave shape, which provides the building panel with superior rigidity in comparison to the straight central portion. The panel's improved strength and rigidity even surpass that of a building panel having *a straight central portion that includes a notched stiffener*.⁹

⁸ See, e.g., *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000).

⁹ Application, p. 6, ll. 3-11 (emphasis added).

Furthermore, the Examiner argues that the two flat sides of a building panel's flat region separated by a stiffening rib anticipate the "side wall" elements of the invention claimed. However, such an interpretation of the claim term "side wall" is ignoring the ordinary and customary meaning of the claim terms. "The general rule is, of course, that terms in the claim are to be given their ordinary and accustomed meaning."¹⁰ The ordinary and customary meaning of the term "side wall" is inconsistent with two flat side elements that together comprise a flat region. The ordinary and customary meaning of "side wall" must necessarily exclude coplanar surfaces, such as segments of a flat region that the Examiner is asserting as "side walls." The Examiner's interpretation is inconsistent with the ordinary and customary meaning of the claim terms, and thus is improper.

B. Neither A *Prima Facie* Case of Anticipation nor Obviousness Utilizing Either the *Albrecht* Reference or the *Blazley* Reference Has Been Demonstrated

1. The Examiner Has Failed To Demonstrate A *Prima Facie* Case of Anticipation Utilizing The *Albrecht* Reference

Claims 1-3, 14, 15-17 and 20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,962,622 issued to *Albrecht*.¹¹ To establish a *prima facie* case of anticipation under 35 U.S.C. § 102, the Examiner must demonstrate that a single prior art reference discloses all of the claim's essential elements.¹² Thus, the "exclusion of a claimed element from a prior art reference is enough to negate anticipation by that reference."¹³

¹⁰ *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 989, 50 USPQ2d 1607, 1610 (Fed. Cir. 1999).

¹¹ 05/18/04 Office Action, p. 2.

¹² *E.g., Rockwell Inter. Corp. v. U.S.*, 147 F.3d 1358, 1363, 47 U.S.P.Q.2d 1027, 1031 (Fed. Cir. 1998); *Gechter v. Davidson*, 116 F.3d 1454, 1457, 43 U.S.P.Q.2d 1030, 1032 (Fed. Cir. 1997); *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985); *W.L. Gore & Associates v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

¹³ *Atlas Powder Co. v. E.I. du Pont De Nemours & Co.*, 750 F.2d 1569, 1574, 224 U.S.P.Q. 409, 411 (Fed. Cir. 1984).

a. *Albrecht* Does Not Disclose a Building Panel Including a Curved Central Portion With Side Wall Portions Extending From Its Opposite Ends

The building panel of claim 1 includes a curved central portion and a pair of *side wall* portions. The side portions extend from the opposite ends of the curved central portion. The Examiner has annotated Fig. 9 of *Albrecht* to indicate what the Examiner argues comprise a curved central portion (172) and side wall portions (170) extending from the opposite ends of the curved central portion.¹⁴ However, the Examiner is arguing an interpretation of *Albrecht* that *Albrecht* itself does not teach. Rather, *Albrecht* discloses that "a hat-shaped roof deck 168 presenting a *flat region* or crest 170 provided with a stretched-in *stiffening rib* 172."¹⁵ Furthermore, *Albrecht* distinguishes itself from a building panel having a curved central portion: "In accordance with the present invention, at least one stiffening rib is formed *in the flat region*."¹⁶ According to *Albrecht*, the stiffening rib is part of a flat region. In other words, *Albrecht* neither discloses nor claims a curved central portion as claimed. Rather, as quoted above, *Albrecht* discloses a flat region.

Figure 9 of *Albrecht*, as further taught by the text of the specification, shows that the stiffening rib 172 is only part of the larger flat region or crest 170. The stiffening rib 172 of *Albrecht* simply cannot anticipate the curved central portion of the building panel of claim 1--the curved central portion as claimed, and consistent with the specification, which distinguishes the curved central portion of the claimed invention from a flat region with a stiffening notch. A building panel with a flat region central portion, as disclosed in *Albrecht*, is clearly different than

¹⁴ 05/18/04 Office Action, p. 2.

¹⁵ *Albrecht*, col. 7, ll. 62-64.

¹⁶ *Albrecht*, col. 2, ll. 55-56.

a building panel having a curved central portion as claimed. Thus, *Albrecht* does not provide the requisite disclosure to anticipate claim 1.

Applicant also notes that even in what *Albrecht* describes as its "broadest aspects," the building panel of *Albrecht* includes a flat region central portion, not a curved central region. By attempting to characterize the stiffening rib 172 of as a curved central portion, the Examiner is attempting to interpret *Albrecht* more broadly than even the inventor *Albrecht* contemplated.

Applicant has clearly distinguished building panels similar to those in *Albrecht* from the building panel of claim 1: "*Unlike* the panel 400 illustrated in Fig. 4, which has a straight central portion 402, the panel of the present invention, as illustrated in Fig. 9, includes a curved central portion 902."¹⁷ Furthermore, Applicant has distinguished building panels having flat region central portions that include stiffening ribs as in *Albrecht*.

The central portion 402 [of the prior art] is straight, and in order to increase that portion's stiffness it may include a notched portion 408. Assuming the central portion includes a notched stiffener, the central portion 402 would be separated into two sub-central portions 404, 406.¹⁸

The Examiner's designation of the stiffening rib 172 of *Albrecht* as a curved central portion and the Examiner's designation of flat region or crest 170 as a side wall portion is inconsistent with the disclosure in *Albrecht*. Furthermore, the Examiner's designation of the stiffening rib 172 of *Albrecht* as analogous to a curved central portion is inconsistent with the language of claim 1, which particularly points out and distinctly claims the subject matter that *Applicant* regards as his invention.

¹⁷ Application, p. 10 (emphasis added).

¹⁸ Application, p. 2.

Each of claims 1-3, 14, 15-17 and 20 includes a curved central portion that is patentably distinct from a flat region with a stiffening rib, as discussed above. Accordingly, *Albrecht* fails to anticipate claims 1-3, 14, 15-17 and 20 of the present invention.

2. The Examiner Has Failed To Demonstrate A *Prima Facie* Case of Anticipation Utilizing The *Blazley* Reference

Claims 1-3, 8, 9, 14, 15-17, 19 and 20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Blazley*.¹⁹

As stated earlier, When examining claims for patentability, claims are interpreted as broadly as is reasonable and consistent with the specification.²⁰ To establish a *prima facie* case of anticipation under 35 U.S.C. § 102, the Examiner must demonstrate that a single prior art reference discloses all of the claim's essential elements.²¹ Thus, the "exclusion of a claimed element from a prior art reference is enough to negate anticipation by that reference."²²

a. *Blazley* Does Not Disclose a Building Panel Including a Curved Central Portion With Side Wall Portions Extending From Its Opposite Ends

As with the *Albrecht* reference, the Examiner urges that a stiffening rib in a longitudinal flat region anticipates the curved central portion of the building panel claimed in the present invention. Claims 1-3, 8, 9, 14, 15-17, 19 and 20 each recite a building panel that comprises a curved central portion, specifically a curved central portion that is patentably distinct from a longitudinal flat region having a stiffening rib. In every description of the curved elements cited

¹⁹ 05/18/04 Office Action, p. 2.

²⁰ See, e.g., *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000).

²¹ E.g., *Rockwell Inter. Corp. v. U.S.*, 147 F.3d 1358, 1363, 47 U.S.P.Q.2d 1027, 1031 (Fed. Cir. 1998); *Gechter v. Davidson*, 116 F.3d 1454, 1457, 43 U.S.P.Q.2d 1030, 1032 (Fed. Cir. 1997); *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985); *W.L. Gore & Associates v. Garlock, Inc.*, 721 F.2d 1540, 1554, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

²² *Atlas Powder Co. v. E.I. du Pont De Nemours & Co.*, 750 F.2d 1569, 1574, 224 U.S.P.Q. 409, 411 (Fed. Cir. 1984).

by the Examiner, *Blazley* refers to the curved elements as "ribs"²³ consistent with the description of the stiffening ribs distinguished as prior art by the claims of the present invention, when interpreted reasonably and consistent with the specification. Furthermore, the ribs of *Blazley* are transverse in orientation, not in cross section of the building panel,²⁴ as claimed in the present invention. Accordingly, *Blazley* fails to anticipate claims 1-3, 8, 9, 14, 15-17, 19 and 20 of the present invention.

3. The Examiner Has Failed To Demonstrate A *Prima Facie* Case of Obviousness Utilizing The *Albrecht* Reference

Claims 4-11, 18 and 19 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of *Albrecht*.²⁵

The Examiner can satisfy her burden of establishing a *prima facie* case of obviousness "**only by showing some objective teaching** in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references."²⁶ In this case, the Examiner cites only one reference, *Albrecht*, to render Claims 4-11, 18 and 19 obvious. Modifying a single reference to support a determination of obviousness is improper absent a sufficient teaching or suggestion in the prior art to make such a modification. ²⁷ Thus, modifications to a prior art reference are improper without evidence of a

specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge

²³ See e.g. *Blazely* col. 3, line 30.

²⁴ See e.g. *Blazely* col. 2, line 4.

²⁵ 05/18/04 Office Action, p. 3.

²⁶ *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988) (emphasis added).

²⁷ See *In re Fritch*, 972 F.2d 1260, 1266, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992) (stating that "[a]lthough couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art").

of [the applicant's] invention to make the combination in the manner claimed.²⁸

Here, consistent with the above remarks concerning claim rejections under 35 U.S.C. § 102(b), it is clear that *Albrecht* does not disclose all of the claimed elements. Thus, the Examiner must point to some particular teaching or suggestion in *Albrecht* that supports modifying the reference to provide a building panel including a curved central portion and side wall portions extending from opposite ends of the curved central portion, as claimed in independent claims 1 and 14. The Examiner has failed to cite any support in *Albrecht* that suggests modifying the reference in such a manner because such a teaching does not exist. In fact, *Albrecht* describes the "broadest aspects" of the building panel disclosed, and admits that even in its broadest aspects, the building panel of *Albrecht* includes a flat region central portion.²⁹

As discussed above, a lack of evidence showing some objective teaching in *Albrecht* or that knowledge generally available to one of ordinary skill in the art that would lead that individual to modify *Albrecht* makes the current obviousness rejection improper.

4. The Examiner Has Failed To Demonstrate A *Prima Facie* Case of Obviousness Utilizing The *Blazley* Reference

Claims 4-7, 10, 11 and 18 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of *Blazley*.³⁰ The Examiner can satisfy her burden of establishing a *prima facie* case of obviousness "*only by showing some objective teaching* in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references."³¹ In this case, the Examiner cites only one reference,

²⁸ *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (holding that the Board did not make out a proper *prima facie* case of obviousness when it modified a single reference without a specific motivation to make such a modification).

²⁹ *Albrecht*, col. 2, ll. 43-56.

³⁰ 05/18/04 Office Action, p. 4.

³¹ *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988) (emphasis added).

Blazley, to render Claims 4-7, 10, 11 and 18 obvious. Modifying a single reference to support a determination of obviousness is improper absent a sufficient teaching or suggestion in the prior art to make such a modification.³² Thus, modifications to a prior art reference are improper without evidence of a

specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of [the applicant's] invention to make the combination in the manner claimed.³³

Here, consistent with the above remarks concerning claim rejections under 35 U.S.C. § 102(b), it is clear that *Blazley* does not disclose all of the claimed elements. Thus, the Examiner must point to some particular teaching or suggestion in *Blazley* that supports modifying the reference to provide a building panel including a curved central portion and side wall portions extending from opposite ends of the curved central portion, as claimed in independent claims 1 and 14. The Examiner has failed to cite any support in *Blazley* that suggests modifying the reference in such a manner because such a teaching does not exist. In fact, *Blazley* describes element cited by the Examiner as nothing more than a stiffening rib,³⁴ which is precisely the sort of prior art distinguished by the invention claimed.

As discussed above, a lack of evidence showing some objective teaching in *Blazley* or of knowledge generally available to one of ordinary skill in the art that would lead that individual to modify *Blazley* makes the current obviousness rejection improper.

³² See *In re Fritch*, 972 F.2d 1260, 1266, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992) (stating that "[a]lthough couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art").

³³ *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313, 1318 (Fed. Cir. 2000) (holding that the Board did not make out a proper *prima facie* case of obviousness when it modified a single reference without a specific motivation to make such a modification).

³⁴ *Blazley*, Abstract; col. 7, ll. 37, 45, 53, 60.

C. Conclusion

Because the Examiner is interpreting the claims unreasonably and inconsistent with the specification, as well as inconsistent with the ordinary and customary meaning of the claim terms, the claims are being examined by reference to irrelevant prior art. Accordingly, all rejections based on such irrelevant prior art are improper, and Applicant respectfully requests reversal of the Examiner's rejections.

Also, because neither *Albrecht* nor *Blazley* discloses (i) a building panel including a curved central portion or (ii) a building panel including a pair of side portions extending from the opposite ends of the curved central portion, the Examiner has failed to establish a *prima facie* case of anticipation against the claims of the present invention. Furthermore, because the Examiner has not pointed to any specific evidence that suggests modifying *Albrecht* or *Blazley* in the manner claimed in the present invention, the Examiner has not established a *prima facie* case of obviousness against those claims. For the reasons stated above, Applicant believes those claims, as currently presented, are in condition for allowance and respectfully requests reversal of the Examiner's rejection, and further requests allowance of those pending claims.

Respectfully submitted,

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APPENDIX A

1. (original) A building panel, comprising:
 - (a) a curved central portion;
 - (b) a pair of side wall portions extending from opposite ends of said curved central portion; and
 - (c) a pair of complementary wing portions extending from said side wall portions.
2. (original) The building panel of Claim 1, wherein said curved central portion has a concave shape from a perspective between said side wall portions.
3. (original) The building panel of Claim 1, wherein said curved central portion resembles an arc.
4. (original) The building panel of Claim 3, wherein said arc ranges from 15° to 130°.
5. (original) The building panel of Claim 3, wherein said arc ranges from 40° to 130°.
6. (original) The building panel of Claim 5, wherein said arc ranges from 60° to 120°.
7. (original) The building panel of Claim 6, wherein said arc is 85°.
8. (original) The building panel of Claim 3, wherein said arc has a radius ranging from 4 inches to 25 inches.
9. (original) The building panel of Claim 3, wherein said arc has a radius ranging from 4 inches to 12 inches.
10. (original) The building panel of Claim 9, wherein said radius ranges from 5 inches to 8 inches.
11. (original) The building panel of Claim 9, wherein said radius is 6 inches.
12. (previously presented) The building panel of Claim 1, wherein said side wall portions extend at an incline from said opposite ends of said curved central portion.
13. (previously presented) The building panel of Claim 1, wherein said side wall portions extend tangentially from said opposite ends of said curved central portion.

14. (original) The building panel of Claim 1, wherein one of said wing portions comprises a hook portion and the other of said wing portions comprises a hem portion.
15. (original) A building structure, comprising a plurality of interconnected panels, each of said panels comprising:
 - (a) a curved central portion;
 - (b) a pair of side wall portions extending from opposite ends of said curved central portion; and
 - (c) a pair of wing portions extending from said side wall portions, wherein one wing portion extends from a first of said side wall portions and the other wing portion extends from a second of said side wall portions, wherein said one wing portion from a first of said panels is connected to said other wing portion from a second of said panels.
16. (original) The building structure of Claim 15, wherein said curved central portion has a concave shape from a perspective between said side wall portions.
17. (original) The building structure of Claim 15, wherein said curved central portion resembles an arc.
18. (original) The building structure of Claim 17, wherein said arc ranges from 15° to 130°.
19. (original) The building panel of Claim 17, wherein said arc has a radius ranging from 4 inches to 25 inches.
20. (original) The building structure of Claim 15, wherein said one wing portion comprises a hook portion and said other wing portion comprises a complementary hem portion such that said hook and hem portions interconnect.